

Inventor(s): KOIDE et al.

Appln. No.: 09

711,908

Series Code ↑

Serial No. ↑

Filed: November 15, 2000

Hon. Commissioner of Patents

Washington, D.C. 20231

JAN 30 2002

Sir:

REPLY/AMENDMENT/LETTER

Date: January 30, 2002

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

## FEE REQUIREMENTS FOR CLAIMS AS AMENDED

## 1. Small Entity claim

A. ☒ NOT madeB. ☐ WithdrawnC. ☐ made herewithD. ☐ made previously

For B & C  
See **Required**  
**Separate Paper**  
(Pat-256)

Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims	12	**minus 20	0	x \$18/\$9 =	+ \$0 103/203
3. Independent Claims	1	***minus 3	0	x \$84/\$42 =	+ \$0 102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application) ..... add				+ \$280/\$140 =	+ \$0 104/204
5. Original due Date: February 7, 2002		<input type="checkbox"/> NONE			
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached		(1 mo) \$110/\$55 = (2 mos) \$400/\$200 = (3 mos) \$920/\$460 = (Usable only for ≤ 2mo.OA --- 4 mos) \$1,440/\$720= (Usable only for 30 day/1mo.OA --- 5 mos) \$1,960/\$980=	+ \$0		115/215 116/216 117/217 118/218 128/228
7. Enter any previous extension fee paid since above original due date and subtract			- \$0		
8. Extension Fee Attached			+ \$0		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee .....			+ \$110/\$55	+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c), ..... add			+ \$180	+ \$0	126
or if Rule 97(d) Request ..... add			+ \$180	+ \$0	126
11. After-Final Request Fee per rules 129(a) and 17(r) .....			+ \$740/370	+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b).....			x \$740/370 ea	+ \$0	149/249
13. Request for Continued Examination (RCE) .....			+ \$740/370	+ \$0	1179/1279
14. Petition fee for .....			+ \$0		
15. TOTAL FEE ENCLOSED =				\$0	

16. \*If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. \*\*If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. \*\*\*If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

Our Deposit Account No. 03-3975)

(Our Order No. 51273

C#

268415

M#

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Pillsbury Winthrop LLP

Intellectual Property Group

By Atty: John P. Darling

Sig:

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NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

KOIDE et al.

Appln. No.: 09/711,908

Filed: November 15, 2000

Title: METHODS FOR MANUFACTURING A LIGHT-EMITTING DEVICE

Group Art Unit: 2814

Examiner: Louie, W.

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TECHNOLOGY CENTER 2800

January 30, 2002

\* \* \* \* \*

AMENDMENT UNDER 37 C.F.R. § 1.111

Hon. Commissioner of Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action dated November 7, 2001, please enter the following amendments and remarks:

IN THE CLAIMS:

Please amend claims 21, 27, 28, 29, and 32 as follows:

sub C1  
B1

21. (Amended) A method of manufacturing a light-emitting device, said method comprising:  
forming a light-emitting layer comprised of  $\text{In}_X\text{Ga}_{1-X}\text{N}$  on a sapphire substrate,  
wherein the light-emitting layer has an indium mole fraction X and emits light of  
wavelength (nm) =  $1239.8/E_g$  (eV), such that the emitted light has an energy level  $E_g < 3.4 * (1 - X) + 1.95 * X - 1.0 * X * (1 - X)$ .

B2

27. A method according to claim 21, said method further comprising:  
disposing a buffer layer comprising AlN on the sapphire substrate;  
interposing a first clad layer comprising n-GaN between the buffer layer and the light-emitting layer; and  
forming a second clad layer comprising p-GaN doped with magnesium over the light-emitting layer.